DOCUMENT RESUME

ED 314 210 PS 018 542

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TITLE Children's Type A Behavior and Teacher Ratings of Social Skills.
PUB DATE Apr 89
NOTE 14p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (Kansas City, MO, April 27-30, 1989).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Elementary Education; *Elementary School Students; *Interpersonal Competence; *Predictor Variables; *Rating Scales; Social Support Groups
IDENTIFIERS Hunter Wolf A B Rating Scale; Matthews Youth Test for Health; *Type A Behavior

ABSTRACT

Research has indicated that some Type A individuals lack social support networks; this study was designed to determine whether an alienating aspect of Type A behavior pattern (TABP) is evident in grade school children. As part of the study, two commonly used TABP scales for children, the Matthews Youth Test for Health (MYTH) Scale and the Hunter Wolf A-B Rating Scale (ABRS), were evaluated in an effort to determine which scale best predicted students' social competence. Social competence was measured by peer liking and disliking nominations and the Teacher Rating of Social Skills (TRSS) scales. Subjects were 127 elementary school students from third though seventh grades. Findings indicated that MYTH scores correlated significantly and negatively with TRSS scores, whereas ABRS scores did not. The correlation between TRSS scores and the MYTH impatience-aggression factor was negative, whereas the correlation between TRSS and the MYTH leadership-competitiveness factor was positive. Findings suggest that children's Type A behavior pattern may be composed of elements that both encourage and discourage the formation of social support. High Type A scores were significantly associated with lack of social skills among children. (RH)

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Children's Type A Behavior and Teacher Ratings of Social Skills

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PS 018512

Paper presented at the biennial meeting of the Society for Research in Child Development, Kansas City, MO, April 27-30, 1989.

Running head: SOCIAL SKILLS & TYPE A

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Abstract

Research has indicated that some Type A individuals lack social support networks; this research asks whether an alienating aspect of Type A behavior pattern (TABP) is evident in grade school children. Two measures currently being employed to assess TABP in children are the MYTH (Matthews & Angulo, 1980) and the A-B Rating Scale (Wolf, et al., 1982). One hundred and twenty-seven children from 3rd to 7th grade were administered the A-B Rating Scale scale; their teachers also completed the MYTH and the Teacher's Rating of Social Skills scale (TRSS) on these children. Earlier research (Jose, 1986) has shown that the TRSS correlates significantly with peer nominations of disliking.

Results showed that MYTH scores correlated significantly and negatively with TRSS scores, whereas A-B Rating Scale scores did not correlate significantly with the TRSS. The correlation between TRSS scores and the MYTH impatience/aggression factor was negative, whereas the correlation between TRSS and the leadership/competitiveness factor was positive. The present study suggests that children's TABP, as measured by the MYTH, may be composed of disparate elements that both encourage and discourage the formation of social support. This may help account for the finding that some Type A individuals form social networks, and some do not. Overall, however, high Type A scores were significantly associated with lack of social skills among children.

Prediction of Children's Social Competence by Two Type A Behavior Pattern Scales

The Type A behavior pattern (TABP), characterized by extremes of competitive achievement-striving, time urgency, impatience, easily aroused anger, and aggression, has been implicated as a causal factor in coronary and artery disease (Rosenman, Brand, Jenkins, Friedman, Straus, & Wurm, 1975). Williams et al. (cited in Wood, 1986) has found that Type A individuals who possess strong social support networks show less narrowing of coronary arteries than do Type A individuals who lack social support. It is possible that having friends may mitigate the psychologically and physiologically corrosive influences of TABP by helping one to effectively cope with life's stressful events. TABP itself may alienate potential friends and allies since the individual will behave aggressively and impatiently with others. The present study was performed to see whether TABP among children is associated with teacher's ratings of poor social skills.

One implication of this finding is that if children who lack appropriate social skills can be identified, these children could subsequently be taught better social skills, which would then help them to build supportive social networks. The friendship networks could then serve to assist the child throughout his/her lifetime in coping effectively with stressful situations and possibly lower their susceptibility to coronary heart disease.

Two measures currently being employed to assess the Type A behavior pattern in children are the MYTH (Matthews Youth Test for Health; Mathews & Angulo, 1980) and the A-B Rating Scale (Wolf, Sklov, Wenzl, Hunter, & Berenson, 1982). Research by Jackson and Levine (1987) has indicated a low degree of correlation (r = .21) between these two scales. This lack of association may be due, in part, to differences in the format of the two scales. The MYTH is a two-factor questionnaire which is completed by the child's teacher. The A-B Rating Scale, on the other hand, is a self-assessment questionnaire which is completed by the child who describes his/her own behavior. There are two potential explanations for why the difference in format between these two measures might account for the lack of association. First, it is possible that children are unable to understand the questions on the A-B Rating Scale. Second, it is possible that children are unable to rate their own behaviors relative to the behavior of others. For example, one of the traits is "easy-going/hard-driving". Grade school children very likely do not routinely evaluate and categorize peers on this dimension. Thus, they would find it more difficult to compare their behavior to a hypothesized norm than would adolescents or adults who probably think about this issue more.

The present research seeks to evaluate which measure of the Type A behavior pattern, the MYTH or the A-B Rating Scale, is a better predictor of the quality of a child's social skills. Given that the quality of the psychometric properties of the MYTH has been validated in previous research (Jackson & Levine, 1987; Matthews & Angulo, 1980), and our belief that teachers are better able to objectively assess the behavior of children than are the children themselves, the main hypothesis of this study was that the MYTH would correlate more strongly with measures of social skills than would the A-B Rating Scale.

Method

Subjects

The age span for the first wave of data collection was kindergarten to 4th grade. We sampled children from two schools, one parochial (Catholic) school (A), and one public school (B). The second wave of testing occurred three years later, and a third school, a non-religious private school (C) was added so as to increase generalizability. The age range for this secondary assessment was also four years: 3rd grade to 7th grade. A total of 283 children were tested on the first wave (see Table 1): 141 males and 142 females relatively evenly distributed from kindergarten to 4th grade. The second wave of data collection included fewer children due to lack of funding for data collection. A total of 37 males and 47 females from school A, 36 males and 29 females from school B, and 22 males and 27 females from school C were tested. The number of children who were tested in both waves of data collection totalled 81: 12 males and 18 females from school A and 26 males and 25 females from school B.

Insert Table 1 about here

Procedure

For the initial testing, each child was assessed for Type A behavior by their teachers using the MYTH (Matthews & Angulo, 1980). The MYTH questionnaire consists of 17 items that reflect Type A behavioral qualities in children. The teachers rated each student on a 5-point scale according to how well that child's behavior reflected each of the 17 items of the MYTH, with the rating of one (1) being least characteristic and five (5) being most characteristic of the child's behavior. All items on each

individual's questionnaire were tallied, yielding a total score. Thus, the lowest possible score of 17 represents extreme Type B behavior and the highest score of 85 represents extreme Type A behavior in a particular child.

Also on the first wave, children were individually interviewed and asked to evaluate their peers. Specifically, they were asked to nominate "three children whom they like the most and three children whom they like the least." These sociometric liking and disliking nominations were then tallied for each child within a given classroom, then the number of liking and disliking nominations were used in subsequent statistical analyses.

The second wave of data collection again employed the same MYTH questionnaire on the same children, however, since all children had progressed three years in school the evaluator was a different teacher than for the first wave. In addition to the MYTH, the A-B Rating Scale (Hunter et al., 1982) was also used to assess Type A behavioral qualities in the children of our sample. This particular questionnaire consists of twenty-four (24) items that also reflect Type A qualities in children. However, instead of the teachers making the assessments, the children assessed themselves, and on a 7-point scale instead of the 5-point scale of the MYTH. The ratings were scored in the Type A direction and summed over the 24 items to obtain a total Type A score. The range for the scores was 24 (extreme Type B) to 168 (extreme type A).

Lack of resources prevented us from reinterviewing children to obtain the liking and disliking nominations. However, in order to assess each child's social competence it was decided to use teacher's ratings. It was hoped that these ratings would be comparable to the sociometric ratings used in the first wave. The Teacher Rating of Social Skills (TRSS) is composed of 17 items which ask the teacher to rate the child on a variety of social behaviors, e.g., "deals with conflict situations successfully," "works well with classmates," and "everyone likes to be with," using a three-point scale.

Results

Factor analysis of the TRSS

To determine whether the Teacher Rating of Social Skills scale constituted a single factor of appropriate child behavior, a factor analysis was performed on the 17 items. A principal components analysis with varimax rotation of factors was performed. This procedure resulted in the identification of one factor with an eigenvalue of 9.34; the remaining factors had

eigenvalues substantially lower (1.4 and less). The first factor accounted for 54.9 of the common variance, and was thought to represent the intercorrelation of the items most accurately. Thus, it was concluded that the TRSS scale contains a single coherent factor of children's social competence. All factor loadings were strongly positive ranging between .49 and .87, and no item loaded more heavily on another factor other than the first one.

In addition to the factor analysis of the TRSS, an analysis of the reliability of the measure was performed. Cronbach's alpha was found to be high (.95, N = 127), indicating that the scale has good internal consistency.

A second issue was the degree of correlation between the sociometric liking and disliking nominations and the TRSS. The correlation between earlier liking nominations and subsequent TRSS scores was in the predicted direction but was nonsignificant, $r(50) = .14$, $p = .16$. However, for the disliking nominations, there was a significant negative relationship with the TRSS, $r(50) = -.40$, $p < .01$. Thus, these findings show that disliking nominations by peers predicted to some extent how teachers would rate the same children three years hence.

We did not find a strong relationship between liking nominations and TRSS scores, but there are several reasons why this may have happened. First, the behaviors assessed by the TRSS probably are not exhaustive of those characteristics that children attend to when they decide whether they like a peer. Second, the sociometric nominations were made by the child's peers, and the TRSS ratings were made by the child's teacher. Third, it is possible that some children may have changed the nature and type of their social behaviors over the three year interval between the two assessments. Despite the nonsignificant correlation between the TRSS scores and liking nominations, the moderately strong correlation between the TRSS and disliking nominations suggests that the TRSS identifies children who are not disliked.

Correlations between MYTH, A-B Rating Scale, and TRSS

The major prediction to be tested was that the MYTH would correlate more strongly with the TRSS than would the A-B Rating Scale. Table 2 shows that the second wave combined MYTH scores correlated significantly and negatively with TRSS scores, $r(125) = -.23$, $p < .005$. In contrast, scores on the A-B Rating Scale did not correlate significantly with the TRSS, $r(89) = .09$, $p = .21$.

Insert Table 2 about here

Matthews has found that the MYTH is composed of two factors. It was hypothesized that TRSS scores would be differentially correlated with the two factors. Table 2 shows that a significant correlation was found between the Leadership/Competitiveness factor and TRSS scores, $r(125) = .27$, $p < .001$. An even more impressive relationship was observed between the MYTH factor of Impatience/Aggression and TRSS scores, $r(125) = -.55$, $p < .0001$.

How did the present TRSS scores correlate with the older MYTH data? A significant correlation between the Impatience/Aggression MYTH data collected three years ago and the TRSS was found, $r(50) = -.32$, $p < .025$. However, the comparable correlation with the old Leadership/Competitiveness data did not yield a significant correlation, $r(50) = .03$, $p = .41$. It seems, then, that the new MYTH data were significantly related to the TRSS scores taken at the same time, and the older MYTH scores were only weakly correlated.

The most important fact of these findings is that the Leadership/Competitiveness factor evidences a positive relationship to the TRSS, while the Impatience/Aggression factor evidences a negative relationship. This indicates that the MYTH is composed of characteristics that predict both good and poor social competence. Further, the latter relationship is stronger than the former, indicating that the TRSS scores are more predictive of the presence of impatience/aggression than leadership/competitiveness.

Analyses of Variance

A 3 X 2 analysis of variance (ANOVA) of grade by gender for the TRSS yielded a statistically significant main effect for grade ($F(2, 74) = 8.14$, $p < .05$). That is, children who were in kindergarten or first grade (20.34) showed significantly lower TRSS scores than did second and third graders (26.72). Further, TRSS scores for the fourth and fifth graders were significantly higher than were the mean scores for the other two grade levels (29.21). In addition, a marginally significant main effect was found for gender. Boys received lower TRSS scores (23.1) than girls (26.7), $F(1, 74) = 2.76$, $p = .10$. These results indicate that teachers felt that girls demonstrated somewhat better social skills than boys, and older children demonstrated better social skills than younger children.

A second ANOVA for the A-B scores by grade and by gender yielded a marginally significant main effect for gender ($F(1, 74) = 3.81$, $p = .055$). That is, boys (95.05) scored significantly higher on the A-B Rating Scale than did girls (90.64). Both of these ANOVAs failed to yield evidence to suggest the presence of an interaction between grade and gender for either the TRSS or the A-B Rating Scale.

Discussion

It has been claimed that the Type A behavior pattern develops early in one's life. More specifically, Matthews and Angulo (1980) have identified certain antecedents of Type A behavior in childhood behavior. Thus, children who exhibit Type A behavior are seen to behave aggressively, impatiently, competitively, and assertively. It was argued in the present paper that Type A children are likely to be disliked by their peers because of these disagreeable traits. This proposed lack of social skills is a problem in that these children may not succeed in developing supportive social networks at this age as well as later. The lack of friends, in turn, may make it more difficult for the individual to cope with stressful events.

The present study sought to evaluate which of two commonly used TABP scales for children, the MYTH and the A-B Rating Scale, was a better predictor of social competence as measured by peer liking/disliking nominations and the Teacher Rating of Social Skills Scale. This question is of interest since both Bishop et al. (1987) and Jackson and Levine (1987) have concluded that the MYTH and the A-B Rating Scale should not be considered interchangeable measures of TABP in children. Our major hypothesis was that the MYTH would correlate more strongly with both measures of social competence than would the A-B Rating Scale, for two major reasons. First, the psychometric properties of the MYTH have been previously validated (Jackson & Levine, 1987; Matthews & Angulo, 1980). Similar data for the A-B Rating Scale are lacking. Second, we considered it likely that teachers would be better able to objectively assess the behavior of the children in question than would the children themselves. Our second major hypothesis was that the MYTH would be more strongly correlated to the TRSS than to the liking/disliking nominations since both the MYTH and the TRSS rely upon teacher evaluations and the nominations are given by the children themselves.

In this study, we first established that the TRSS, a new instrument, contains a single coherent factor of social competence, using both factor analysis and Cronbach's alpha. We further demonstrated a moderately strong negative relationship

between disliking nominations and the TRSS. This finding suggests that children who are not well liked are the same children who receive lower social skill ratings on the TRSS.

In terms of our basic hypothesis, evidence from this study suggests that the MYTH is a better predictor of social skills, as measured by the TRSS, than is the A-B Rating Scale. This conclusion is based on the following findings: 1) the A-B scores did not correlate significantly with the TRSS, 2) the 2nd wave combined MYTH scores correlated significantly and negatively with TRSS scores, and 3) the two 2nd wave MYTH factor scores correlated significantly with the TRSS.

Two major conclusions can be drawn from the ANOVA results. First, teachers who rated children using the TRSS indicated that social competence improves with age. Given that it has been shown that children tend to become less egocentric with age, a maturational explanation for higher TRSS ratings for older children than younger children seems reasonable. Also, as expected, boys were rated by their teachers as less socially competent than the girls.

Also as expected, the second analysis of variance indicated that boys tend to rate their level of Type A behavior as significantly higher than do girls. Thus, boys described themselves as acting aggressively, feeling rushed, and demonstrating leadership qualities. This substantiates the finding of Bishop et al. (1987) that boys tend to rate themselves on the A-B Rating Scale as being more Type A than do girls.

There are three major reasons why the findings from the current study must be interpreted with caution. First, resources prevented us from using identical protocol for both waves of data collection. Although we feel confident about the soundness of the TRSS as a measure of social competence, it would have been ideal to have been able to obtain liking/disliking nominations from children during the 2nd stage of data collection as was done in the first stage. In addition, it is not safe to suggest, based on this study, that the A-B Rating Scale should be precluded for use as an assessment of Type A behavior in children. Bishop et al. (1987) point out that the A-B Rating Scale has, in the past, been used to measure Type A behavior in children and adolescents from 10-17 years of age. It is conceivable, therefore, that younger children (as in our sample) are less able than older children to objectively assess their own behavior. Perhaps the strength of the A-B Rating Scale would be more evident when used with a sample of children older than those who participated in our study.

Previous research has pointed out the necessity for having good scales to identify early manifestations of TABP. The present indicates that self-ratings may not be as reliable as teachers' ratings. We would suggest that future research use parent ratings in addition to teacher ratings in order to benefit from the additional source of reliable data. Ultimately, longitudinal research performed to evaluate the ability of children's TABP scales to predict the development of coronary heart disease will need to use the most valid and reliable measures of early TABP. The present data indicate that for grade school children, the MYTH is currently superior to the A-B Rating Scale.

We believe that the present data show that children who possess early manifestations of TABP also manifest a lack of social skills and are disliked by their peers. We are unable to disentangle the complex web of causality between these variables with the present design, but we would like to suggest that future research take up this issue. Do poor social skills precede and cause TABP? Or is it the case that a Type A child, by virtue of being identified as being high on TABP traits, lacks social skills? And do these poor social skills, in turn, alienate potential friends? A longitudinal design which assesses all of these variables at each wave would be better able to answer these questions than the present data. However, the present study is valuable in that it shows that these variables are significantly intercorrelated at this age.

References

Bishop, E.G., Hailey, B.J., & Anderson, H.N. (1987). Assessment of Type A Behavior in children: A comparison of two instruments. Journal of Human Stress, Fall, 121-127.

Hunter, M., Wolf, T.M., Sklov, M.C., Webber, L.S., Watson, R.M., & Berenson, G.S. (1982). Type A Behavior Pattern and cardiovascular risk factor variables in children and adolescents: The Bogulusa Heart Study. Journal of Chronic Diseases, 35: 613-621.

Jackson, C., & Levine, D.W. (1987). Comparison of the Matthews Youth Test for Health and the Hunter-Wolf A-B Rating Scale: Measures of Type A behavior in children. Health Psychology, 6, 255-267.

Jose, P.E. (1986, August). Effects of sex-roles and Type A behavior on children's friendship choices. Paper presented at the American Psychological Association meeting, Washington, D.C.

Matthews, K.A. (1981). Antecedents of the Type A coronary-prone behavior pattern. In S.S. Brehm, S.M. Kassin, & F.X. Gibbons (Eds.), Developmental social psychology (pp. 235-248). New York: Oxford Univ. Press.

Matthews, K.A., & Angulo, J. (1980). Measurement of the Type A behavior pattern in children: Assessment of children's competitiveness, impatience-anger, and aggression. Child Development, 51, 466-475.

Rosenman, R.H., Brand, R.J., Jenkin, C.D., Friedman, M., Straus, R., & Wurm, M. (1975). Coronary heart disease in the Western Collaborative Group Study: Final follow-up experience of 8 1/2 years. Journal of the American Medical Association, 233, 872-877.

Wolf, T. M., Sklov, M. C., Wenzl, P. A., Hunter, S. M., & Berenson, G. S. (1982). Validation of a measure of Type A Behavior Pattern in children: Bogalusa Heart Study. Child Development, 53, 126-135.

Wood, C. (1986). The hostile heart. Psychology Today, 20, 10-12.

Table 1

Distribution of Subjects Tested on the First and Second Data Collection Waves Distributed by Gender, Age, and School

		Grade				
School	Gender	K	1st/2nd	3rd/4th	5th/6th	7th
				1st wave		
A	Boys	23	22	24		
	Girls	19	20	27		
B	Boys	22	27	23		
	Girls	22	23	31		
				2nd wave		
A	Boys			16	14	7
	Girls			10	21	16
B	Boys			17	14	5
	Girls			12	8	9
C	Boys			16	6	
	Girls			22	5	

Table 2

Correlation Matrix of All Measures

	2	3	4	5	6	7	8	9	10
1. Overall MYTH, 1st wave	.95**	.95**	-.02	.14*	.48**	.34**	.46**	.27*	-.17
2. MYTH: Lead/Comp, 1st wave		.81**	.09	.04	.45**	.46**	.31**	.28*	.03
3. MYTH: Imp/Agg, 1st wave			-.12*	.24**	.41**	.15	.50**	.21	-.32*
4. Liking nominations, 1st wave				-.33**	-.00	.04	-.03	.10	.14 *
5. Disliking noms, 1st wave					.17	.02	.24*	.09	-.40*
6. Overall MYTH, 2nd wave						.78**	.86**	.12	-.23*
7. MYTH: Lead/Comp, 2nd wave							.35**	.07	.27**
8. MYTH: Imp/Agg, 2nd wave								.13	-.55**
9. A-B Rating Scale, 2nd wave									.09
10. TRSS, 2nd wave									

Note. * $p < .05$ ** $p < .001$.